LEPAJÕE, Jaan; VOOL, K., red.

[Drying, cleaning, and storage of grain] Teravilja
kuivatamine, puhastamine ja säilitamine. Tallinn, Eesti
Riiklik Kirjastus, 1963. 97 p. [In Estonian]
                                        (MIRA 17:10)

Bo ado. LEPCHENKO, D N.

Refining of Devonian crude oils. M. A. Butkov and D. N. Lepchenko (Neft. Khoz. 1947, Pt. I, 66—69).—Crudes with high S content from areas between the Urals and the Volga (Tuymazy), when treated in the usual way, yield lubricating oils with low S index and high S content. Solvent-refining with PhOH failed to give high-class lubricating oils. By adsorption with SiO_2 gel and subsequent desorption with solvents, high-class motor oils are obtained. Tuymazy oil residue was separated into: (1) 34-61% of paraffinic-naphthenic hydrocarbons, (2) 15-68% of aromatic hydrocarbons, (3) 20-34% of resinous substances, and (4) 19-69% of asphaltic resinous substances. After dewaxing, S-

the dewaxed oils (S index 100) can be obtained from (1). Each group was cracked separately, at 500°, in presence as well as in absence of the C_9H_7-C_9H_6, (2) fraction obtained from cracking of (3) and (4) as well as cracking of the oil residue as a whole, in presence of I, results in accelerated decomp. and reduced coke formation. Synthetic Al silicate, used as cracking catalyst, causes greater coke formation than do natural catalysts of the diabase and basalt types. The latter prove to foster cracking most satisfactorily. The recommended method for treating Devonian crudes is to remove gasolines and kerosenes by stripping and then to crack the residue under the above conditions. The mixture of straight-run and cracked gasolines is treated by Gray's method and with bleaching earth, and stabilized with inhibitor. (The motor gasoline has C_9H_7, an. 72, after addition of 1 ml. of PbR4, per gal.; S content 0.13%.) Catalytic cracking of Devonian crude oil residue yields 36-6% of motor gasoline (final b.p. 200°, C_9H_7, no. 59—63), 31-8% of kerosene (final b.p. 300°), 14-6% of gas oil, 5-7% of coke, and 11-5% of gas + losses. The gas contains a good proportion of olefines suitable for synthesis processes.   H. B.

SHRAMKO, P.P.; LEPCHENKO, G.Ya. [Lepchenko, H.IA.]

Dynamogranite and its enclosing rocks in the Delovoye region of
Transcarpathia. Geol. zhur. 20 no. 5:56-60 '60. (MIRA 14:1)
                    (Transcarpathia—Granite)

LEPCZYNSKI, Czeslaw, inz.

For further development of the rationalization movement in the light
industries. Przegl techn no.22:7 Je '62

LEPCZINSKI, S.
"Automatization and mechanization of production processes in the Bydgoszcz Saddle Words."
(p.59)   PRZEGLAD WLOKIENN

(Centralne Zbiory Prasy si... Gurnictwie t, Chemiczego i Artykul... Skolarskich)
Vol 8 No 2, Feb. 1953

SO: East European Accessions List Vol 3, No 8, August 1954

LEPE, L.N

IVANOV, I.I.; LEPE, L.N.

Specialization and cooperation in the watchmaking industry. Priborostro-
enie no.1:23-25 Ja '57.   (MLRA 10:4)
                   (Clockmaking and watchmaking)

ZEPE, L. N.

AUTHOR   Lepe, L.N., Engineer   119-11-7/7

TITLE   Clook Industry in the USSR.
                (Chasovaya promyshlennost' SSSR)

PERIODICAL   Priborostroyeniye, 1957, Nr 11, pp. 29-33

ABSTRACT   This is one of the youngest branches of national
                economy. After the war clock industry started the
                production of clooks which had still been produced
                in series in prewar times.
                The most important conditions for the transformation
                to the series production of clooks for daily use were
                the works for the standardization and normalization of
                the details, increase of precision at their working in
                mechanic departments, increase of the output and intro-
                duction of new technical methods.
                For the purpose of increasing the precision of the
                produced details the outfit was arranged in individual
                working tables by which measure the vibration of the
                machines was localized. For the purpose of rational
                use of electric energy as well as of the complete uti-
                lization of working space individual machine drives and
CARD 1/3   contactbutton controls of the electric outfit with

Clook Industry in the USSR.

> automatio switch-offs after the end of work were
> widely used.
> As transition stage to continuous series production the
> arrangement of speoialized operation groups for the
> produotion of oertain design groups and details were
> neoessary in the meohanio departments as well as the
> arrangement of the outfit aooording to the oourse of
> the teohnioal prooess.
> The transition to the treatment of the oasings by
> means of outter teeth of plates of hard alloys saved
> the hand polishing by means of ootton wheels and
> essentially improved the quality of the details with
> respeot to the oleanliness of the surfaoes to be
> treated.
> The olook faotories began to widely use most up-to-date
> methods. The oharacter of the modernization of olook-
> produotion during the 5th and 6th five-years-plan oan
> be judged by the ooeffioient of modernisation of the
> basis industrial materials: 1951 - 9,5 %; 1953 - 11 %;

CARD 2/3   1954 - 21 %; 1955 - 23 %.

119-11-7/7

Clock Industry in the USSR.

(There are 7 illustrations, 1 table and 6 Slavic references)

AVAILABLE: Library of Congress.

CARD 3/3

LEPE, L.N.

Present state of clockmaking and watchmaking in capitalist
countries. Priborostroenie no.5:32,3 of cover My '61.
(MIRA 14:5)

(Clockmaking and watchmaking)

LEPECKI, MIECZYSLAW

GEOGRAPHY & GEOLOGY

LEPECKI, MIECZYSLAW. Od Amazonki do Ziemi Ognistej; prdroze po Ameryce
    Poludniowej. (Warszawa) Ludowa Spoldzielnia Wydawnicza, 1958.
    397 p. (Warsaw sketches. illus.) MiDW Not in DLC

Lepecki, M.

Fernando de Noroha Islands. p. 68

GEOGRAFIA W SZKOLE. (Ministerstwo Oswiaty, Polskie Towarzystwo Geograficzne) Warszawa, Poland

Vol. 12, no. 2, Mar./Apr. 1959

July
/
Monthly list of East European Accessions (EEAI) LC. Vol. 8, no. 7, 1959.

Uncl.

LEPEKHA, A.Ye.

Automatic welding of the cover plate of a coal grinding mill.
Avtom.svar.6 no.3:37-40 My-Je '53.   (MLRA 7:5)
        (Electric welding) (Milling machinery)

LEPEKHA, A.Ye.

Bending test problem. Avtom.svar.6 no.3:63-64 My-Je '53. (MLRA 7:5)

1. Novo-Kramatovskiy zavod im. Stalina. (Electric welding)
(Metals—Testing)

LEPEKHA, A.Ye.

Applying automatic welding in the production of welded hydraulic jacks
made of KhGSL and St.35, 80-90 mm thick steel. Avtom.svar.6 no.6:71-73
N-D '53.   (MLRA 8:4)

1. Novo-kramatorskiy zavod im. Stalina.
      (Electric welding) (Hydraulic jacks)

LEPEKHA, A.Ye., inzhener.

Centering pipes by the electrooxygen method. Vest.mash. 33 no.10:38 O '53.
(MLRA 6:10)
(Pipe fitting)

LEPEKHA, A.Ye., inzhener.

Welded bridge cranes of high load capacity. Vest.mash.34 no.4:71-73
Ap '54.   (MLRA 7:5)
(Cranes, derricks, etc.)

USSR/Engineering - Welding

Card   :   1/1   Pub. 128 - 16/32

Authors   :   Lepekha, A. Ye.

Title   :   The use of welding in excavator construction

Periodical :   Vest. mash. 34/7, 54 - 57, July 1954

Abstract   :   The article deals with the use of welding (arc and acethylene) in the
                construction of EGL-15, and ESh-4/40, excavators. Approximately 50 - 60%
                of the components, in the above mentioned excavators, are welded. Vari-
                ous excavator components, which were welded, are shown. Illustrations;
                diagrams.

Institution :   ...

Submitted   :   ...

LEPEKHA, A.Ye.; LEUTA, V.I., inzhener, redaktor; RUDENSKIY, Ya.V.
tekhnicheskiy redaktor.

[Flame surface hardening of steel] Plamennaia poverkhnostnaia
zakalka stali. Kiev, Gos.nauchno-tekhn.izd-vo mashinostroit.
lit-ry, Ukrainskoe otd-nie, 1955. 65 p.   (MLRA 8:11)
        (Steel--Heat treatment)

LEPEKHA, A.Ye., inzhener

Welding in the metallurgic equipment industry. Svar. proizv. no.4:27-
28 Ap '55.   (MLRA 8:9)
        (Foundry equipment and supplies) (Cast iron--Welding)

LEPEKHA, I.M., mashinist avtokrara puteukladochnogo poyezda

We use advanced methods in installing poles. Transp. stroi.
12 no.9:4-5 S '62.   (MIRA 16:2)

1. Stroitel'nyy trest Glavzheldorstroya TSentra i Zapada
Ministerstva transportnogo stroitel'stva SSSR.
                    (Railroads—Electrification)

ACCESSION NR: AP4018382   S/0120/64/000/001/0151/0156

AUTHOR: Lepekhin, A. T.; Shereshevskiy, A. M.

TITLE: Magnetic ionization manometer of high sensitivity

SOURCE: Pribory* i tekhnika eksperimenta, no. 1, 1964, 151-156

TOPIC TAGS: manometer, ionization manometer, high sensitivity ionization manometer, magnetic ionization manometer, LM-2 ionization tube, hot cathode ionization tube, cold cathode ionization manometer

ABSTRACT: Many shortcomings of the LM-2 hot-cathode ionization sensor, "which has been widely used in the USSR," are indicated. To eliminate some of these shortcomings, the authors developed a new cold-cathode manometer (see Enclosure 1) based on L. D. Hall's principle of a magnetic-ion pump (Rev. Sc. Instr., 1958, 29, 367). Various phases of its development, including premises, criteria used, etc., are set forth. The developed instrument has these ratings:

Card 1/12

ACCESSION NR: AP4018382

sensitivity, 8 a/torr ± 20%; range, 10^{-3} to 10^{-4} torr; linear scale within the above range; magnetic field intensity, 1,500-1,800 oerst.; supply voltage, 3 kv. The new manometer is used in latest-model mass spectrometers. Orig. art. has: 9 figures.

ASSOCIATION: SKB Analiticheskogo priborostroyeniya AN SSSR (SKB of Analytical Instrument Designing, AN SSSR)

SUBMITTED: 29Aug62   DATE ACQ: 18Mar64   ENCL: 01

SUB CODE: PH   NO REF SOV: 002   OTHER: 002

Card 2/32

Lr ... .

120-4-8/35

AUTHORS: Zhdanov, A.P., Berkovich, I.B., Lepekhin, F.G.,
             Skirda, N.V. and Khokhlova, Z.S.

TITLE: Measurement of Small Angles in Nuclear Photoemulsions
             (Izmereniye malykh uglov v yadernykh fotoemul'siyakh)

PERIODICAL: Pribory i T$_e$khnika Eksperimenta, 1957, No.4,
                                    p.32 (USSR).

ABSTRACT: The problem of accurate measurement of angles between the
        primary and secondary tracks is associated with nuclear inter-
        actions of high-energy particles with nucleons and nuclei in
        nuclear photoemulsions. These angles are of importance in the
        comparison of experimental data with theoretical predictions
        and in the study of multiple production of particles. The co-
        ordinate method allows such a measurement to be carried out
        with sufficient accuracy in different cases.
        In general, when the beginning of the shower is outside the
        emulsion, the angular distribution can only be given relative
        to the axis of the shower which is taken to be coincident with
        the direction of motion of the primary particle. The angle θ
        between the i-th particle and the axis of the shower is in
        this case determined by the formula:

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120-4-8/35

Measurement of Small Angles in Nuclear Photoemulsions.

$$\operatorname{ctg}\theta_i = \frac{\bar{l}^2 + l_i^2 - (R_i - r_i)^2}{\sqrt{4\bar{l}^2 l_i^2 - \left[\bar{l}^2 + l_i^2 - (R_i - r_i)^2\right]^2}} \, ,$$

where:

$$\bar{l}^2 = x^2 + (\bar{y}'' - \bar{y}')^2 + (\bar{z}'' - \bar{z}' + z_0)^2 \, ,$$

$$l_i^2 = x^2 + (y_i'' - y_i')^2 + (z_i'' - z_i' + z_0)^2 \, ,$$

$$R_i = \sqrt{(y_i'' - \bar{y}'')^2 + (z_i'' - \bar{z}'')^2} \, ,$$

$$r_i = \sqrt{(y_i' - \bar{y}')^2 + (z_i' - \bar{z}')^2} \, ,$$

$$\bar{y}' = \sum y_i'/n; \quad \bar{y}'' = \sum y_i''/n;$$

$$\bar{z}' = \sum z_i'/n; \quad \bar{z}'' = \sum z_i''/n \qquad\qquad (1)$$

Card2/4 In the special case where the beginning of the shower lies in

Measurement of Small Angles in Nuclear Photoemulsions.

the emulsion, formula (1) has the following form:

$$\text{ctg } \theta_i = $$

$$= \frac{x^2 + \bar{y}y_i + (\bar{z} + z_o)(z_i + z_o)}{\sqrt{x^2\left[(y_i - \bar{y})^2 + (z_i - \bar{z})^2\right] + \left[\bar{y}(z_i + z_o) - y_i(\bar{z} + z_o)\right]^2}}$$

$$(2).$$

However, if the beginning of the shower does not lie in that layer of the emulsion in which y_i and z_i are measured, then it is necessary to take into account the difference in depth between the layers in measuring x and z_o. If the primary track is recorded, then Eq.(2) takes on a simpler form, since in that case, $\bar{y} = \bar{z} = 0$. The above method of calculation of the angle θ_i from the measured co-ordinates in the plane of the section perpendicular to the plane of the emulsion gives results with an accuracy not greater than 10%. For angles less than 1° the magnitude of the error is greater

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Measurement of Small Angles in Nuclear Photoemulsions. $120-4-8/35$

than 10%. If the disintegration is caused by a neutral particle, then the accuracy of the results depends on the angle of inclination of the jet to the plane of he emulsion and decreases as this angle increases. The described method may be of interest in the experimental investigation of multiple produ- ction of particles. Fig.1 legend: Calculation of θ_i . The track OO' lies in the plane XOZ. It can be any track lying near the middle of the shower. The plane XOY is parallel to the surface of emulsion. Measurements of the co-ordinates y'_i , y''_i , z''_i , z'_i are carried out in planes perpendicular to the axis OX relative to the track OO'; x- length of the projection of OO', z_0 - height of one end of OO' above the other. The axis of the shower need not coincide with any of the tracks of the shower.
There is 1 figure.

ASSOCIATION: Khlopin Radiation Institute of the Ac.Sc. USSR.
(Radiyevyy institut im. V.G. Khlopina AN SSSR)
SUBMITTED: February 13, 1957.
AVAILABLE: Library of Congress
Card 4/4

LEPEKHIN, F.G.

20-6-11/48

AUTHORS: Zhdanov, A.P., Berkovich, I.B., Yermakova, K.I., Lepekhin, F.G., Skirda, N.V., Khokhlova, Z. S. .

TITLE: An Interaction of High Energy Particles with Nuclei (O vzaimodeystvii chastits vysokoy energii s yadrami)

PERIODICAL: Doklady AN SSSR, 1957, Vol. 115, Nr 6, pp. 1093 - 1096 (USSR)

ABSTRACT: The present paper describes the provisional results of the analysis of seven rays with relatively great number of shower particles, which were produced in the interaction with emulsion nuclei. When inspecting one particle of the staple of Ilford G-5 emulsions (Il'ford G-5), which was irradiated for seven hours in a height of about 30 km, the authors chose that irradiation which was produced by neutral and charged particles. When analysing these cases rather reliable data were obtained only on the number of shower particles and on the angular distribution of which. The angles between the direction of motion of the primary partilce and the traces of the secondary particle were measured by the coordinate-method by the aid of the microscope MBI-8. The characteristics of these distributions are compared in a table. The authors graphically represented

Card 1/3

An Interaction of High Energy Particles with Nuclei   20-6-11/48

ASSOCIATION: Radium-Institute imeni V.G. Khlopin, AN USSR
               (Radiyevyy institut im. V.G. Khlopina Akademii nauk SSSR)

PRESENTED: April 4, 1957, by A.F. Ioffe, Academician

SUBMITTED: March 26, 1957

AVAILABLE: Library of Congress

Card 3/3

ZHDANOV, A.P.; LEPEKHIN, F.G.

Interaction between deutons and the C^{12} nucleus. Trudy Radiev. inst.
AN SSSR 9:41-44 '59.   (MIRA'14:6)
                      (Deuterons) (Carbon)

L c P s r H , N , \ c .

(. 2-   PHASE I BOOK EXPLOITATION   SOV/3503

Akademiya nauk SSSR. Radiyevyy institut

Trudy, t. IX (Transactions of the Radium Institute, Academy of Sciences USSR,
    Vol. 9) Moscow, Izd-vo AN SSSR, 1959. 287 p. Errata slip inserted.
    1,700 copies printed.

Ed.: N.A. Perfilov, Doctor of Physical and Mathematical Sciences; Ed. of Publishing
    House: G.M. Aron; Tech. Ed.: A.V. Smirnova.

PURPOSE: The volume is intended for physicists.

COVERAGE: The book represents volume 9 of the Transactions of the Radium Institute
    and contains the results of studies conducted at the Institute chiefly from
    1955 to 1956. There are a number of articles dealing with the study of nuclear
    reactions occurring with particles of different energies ranging from several
    eV up to hundreds of MeV. Others treat different problems of the physics of
    neutrons. Results of studies of various neutron sources, neutron energy distri-
    bution in a moderator (water), and other problems connected with the theory of
    neutron interaction with matter are presented. The majority of the articles

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Transactions of the Radium (Cont.)   SOV/3503

are concerned with problems of method. The authors provide a complete de-
scription of the construction of equipment and of the results of tests performed
under laboratory conditions. No personalities are mentioned. References
accompany individual articles.

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Transactions of the Radium (Cont.)   SOV/3503

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Transactions of the Radium (Cont.)   SOV/3503

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Transactions of the Radium (Cont.)   SOV/3503

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Transactions of the Radium (Cont.)

SOV/3503

Arkhipov, V.A. Accumulation of the Daughter Product in the Branch Decay of the Parent

Transactions of the Radium (Cont.)

SOV/3503

Shamov, V.P. Preparation of Solutions Containing Bismuth For Filling Nuclear
    Photo Emulsions

AVAILABLE: Library of Congress

Card 8/8

TM/lsb
5-25-60

. 21(7)   SOV/56-37-3-3/62

AUTHORS: Berkovich, I. B., Zhdanov, A. P., Lepekhin, F. G., Khokhlova,
                Z. S.

TITLE: Mesonless Decays of Hyperfragments

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959,
                Vol 37, Nr 3(9), pp 604 - 610 (USSR)

ABSTRACT: It was the aim of the investigations, which form the subject of
                this report, to identify some hyperfragments, which had been
                found in part of a G-5 emulsion pile irradiated by 4.5 Bev pions.
                In a systematically investigated emulsion surface of 47 cm^3 eight
                double stars were found, in which the connecting track narrowed
                down, one of the secondary tracks having a range $>$ 5000 μ. These
                stars are ascribed to mesonless decays of hyperfragments. Micro
                projections of the individual stars are shown by figures 1-8, and
                some particular features are discussed. A table shows the data
                determined from all these stars. The following is shown: Figure 1:
                (case Nr 264), primary star 18 + 3π, presumed reaction:

Card 1/3 $_\lambda Li_c^8 \rightarrow H^1 + H^3 + H^3 + n$, $E_n = 90$ Mev, H^1-range 9900 μ. Figure 2:(case

Mesonless Decays of Hyperfragments $SOV/56-37-3-3/62$

Nr 3o13), primary star 14 + 0π, presumed reaction:

$_\Lambda B^{10} \rightarrow H^4 + H^1 + 2H^2 + n$, $E_n \approx 72$ Mev. H^1-range 16500μ. Figure 3: (Nr 3o31)

primary star 12 + 2π, presumed reaction: $_\Lambda C^{12} \rightarrow 2He^4 + H^1 + H^2 + n$,

$E_n = 42$ Mev, H^1-range $< 25000\mu$. Figure 4: (Nr 3'2), primary star

11+3π, presumed reaction: $_\Lambda He^5 \rightarrow H^2 + H^2 + n$, $E_n = 99$ Mev, H^2-range 5900μ.

Figure 5: (Nr 338), primary star 13 + 0π, presumed reaction:

$_\Lambda C^{12} \rightarrow Be^9 + 2H^1 + n$ or: $_\Lambda C^{13} \rightarrow Be^{10} + 2H^1 + n$, $E_n = 108$ Mev, H^1 ranges

821 and 509μ. Figure 6: (Nr 284): primary star 7 + 0π, presumed

reaction: $_\Lambda Be^9 \rightarrow H^1 + H^2 + He^4 + 2n$ or: $_\Lambda B^{10} \rightarrow H^1 + H^2 + He^5 + 2n$, H^1 range

3746μ and H^2-range 2983μ; $E_n = 72$ Mev. Figure 7: (Nr 2711): primary

star 15 + 0π, presumed reaction: $_\Lambda He^5 \rightarrow H^1 + H^3 + n$, $E_n = 89$ Mev, H^1

range $< 15000\mu$. Figure 8: (Nr 275): primary star 17 + 0π, pre

sumed reaction: $_\Lambda Li^6 \rightarrow H^1 + He^4 + n$, $E_n = 77$ Mev, H^1-range $> 23000\mu$.

Card 2/3

Mesonless Decays of Hyperfragments   SOV/56-37-3-3/62

> The ranges of the hypernuclei (in the same order): 87, 16, 94.5.
> 50, 55, 28.5, 77.7 and 181μ.T. I. Ukolova and S. N. Meleshchenko
> took part in these experiments. There are 8 figures, 1 table,
> and 3 references.

ASSOCIATION: Radiyevyy institut Akademii nauk SSSR (Radium Institute of the
             Academy of Sciences, USSR)

SUBMITTED: March 12, 1959 (initially) and June 2, 1959 (after revision)

Card 3/3

Lopekhin, F. G.

2.4.6810

82015
S/056/60/038/02/16/061
B006/B011

AUTHORS: Berkovich, I. B.,   Zhdanov, A. P.,   Lopekhin, F. G.,
            Khokhlova, Z. S.

TITLE: Meson-free Decays of Hyperfragments

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960,
            Vol. 38, No. 2, pp. 423-425

TEXT: Several authors had already been concerned with the experimental
investigation of meson-free hyperfragment decay, and above all, with the
ratio of the number of hyperfragment decays released by (Λ^0, n) interaction
to the number of those released by (Λ^0, p) interaction; R = N/P. The
authors offer a contribution to these problems and publish the numerical
results of an investigation of a G-5 emulsion pile irradiated with
4.5-Bev pions. In the analysis of all two-pronged stars found in 47 cm^3
of emulsion, the authors selected 18 cases satisfying the following
criteria: 1) length of the linking F-track > 20μ; 2) the linking F-track
becomes thinner toward the end of the range. Hyperfragments were divided
into two classes. One covers the decays in which a single-charged particle

Card 1/2

Meson-free Decays of Hyperfragments

82015
S/056/60/038/02/16/061
B006/B011

occurs with a range >3 mm, and the other all the decays in which the secondary particles were slow. The ratio of the decay number of the second type N to the first type P was 10/8 = 1.25. A comparison of results with those from Ref. 1 shows that in all probability the interaction between Λ^0 particles and nucleons does not take place via the virtual Σ-state. Investigations were also extended to the angular distribution of hyperfragments with respect to the primary pion flux. The forward/backward ratio was equal to 2.6, whereas 2.2+0.5 had been found in Ref. 2. The forward/backward ratio for lithium fragments was also determined. For Li fragment energies comparable with hyperfragment energies it was equal to unity. A table contains all measured data concerning the kinematic characteristics of the particles. There are 1 table and 3 non-Soviet references.

ASSOCIATION: Radiyevyy institut Akademii nauk SSSR (Radium Institute of the Academy of Sciences, USSR)

SUBMITTED: August 28, 1959

Card 2/2

BERKOVICH, I.B.; ZHDANOV, A.P.; LEPEKHIN, F.G.; KHOKHLOVA, Z.S.

Cross section of the production of hypernuclei in photoemulsions
by 9 bev. protons. Zhur.eksp.i teor.fiz. 41 no.1:75-77 Jl '61.
(MIRA 14:7)

1. Radiyevyy institut AN SSSR.
    (Photography, Particle track)   (Nuclei, Atomic) (Protons)

S/056/63/044/001/014/067
B108/B180

AUTHORS: Lepekhin, F. G., Makarov, M. M.

TITLE: ·   Search for angular correlations in stars with fragments
produced by 9-Bev protons

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 44,
no. 1, 1963, 68 - 70

TEXT: Fragments and nucleons emerging from processes that follow the
laws of conservation should show angular correlations. To establish this,
the authors examined the angular distributions of the "black" and "gray"
traces of ordinary nuclear fission events, and of the products of frag-
mentation released by 9-Bev protons in nuclear emulsions. About 7000
angles were measured on an МИГЭ-1 (MIGE-1) microscope. Each star had an
average of 12.5 prongs (excluding fragments). The angular distribution of
the "black" traces was isotropic in relation to the traces of the frag-
ments. The distribution of "black" traces in stars with fragments was the
same as in ordinary stars. There are 2 figures.

Card 1/2

S/056/63/044/001/014/067
B108/B180

Search for angular correlations ...

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe Akademii nauk SSSR (Physicotechnical Institute imeni A. F. Ioffe of the Academy of Sciences USSR)

SUBMITTED: July 17, 1962

Card 2/2

L 17599-63   EWT(1)/FCC(w)/BDS/T-2/   S/056/63/044/003/002/053
EED(b)-3/ES(v)   AFFTC/ASD/ESD-3/APGC/IJP(C)   Pe-4   OW   73

AUTHOR: Berkovich, I. B., Zhdanov, A. P., Lepekhin, F. G., and
            Khokhlova, Z. S.

TITLE: Analysis of stars containing hyperfragments produced by 9 Bev
            protons in photographic emulsions

PERIODICAL: Zhurnal eksperimental'noy i tekhnicheskoy fiziki, v. 44, no. 3,
             1963, 793-797

TEXT: Using НИКФИ-Р (NIKFI-R) photoemulsions the authors studied the angular and
energy distribution of fast, singly-charged particles which they found earlier
(ZhETF, 41, 75, 1961) in 20 stars containing hyperfragments generated by 9 Bev
protons. Perpendicular pulse components of K mesons and protons are 430±140 Mev/c
and of π mesons — 250±150 Mev/c. The angular distribution of fast particles is
shown on Fig. 2. The authors conclude that the primary interaction produces Λ^0
particles and K-mesons according to $N + N \rightarrow N + \Lambda^0 + K$. Other Λ^0 production
channels are not present. Λ^0 particle moves backwards in the center of mass system
while the K-meson and the nucleon in its final state probably form an (NK) system

Card 1/2

L 17599-63   S/056/63/044/003/002/053

                                                        O

Analysis of stars containing hyperfragments...
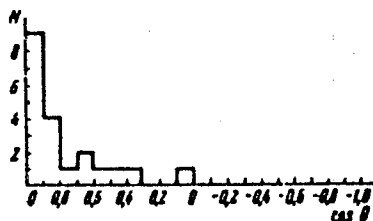
Fig. 2. Angular distribution of fast
particles in stars containing
hyperfragments produced by 9 Bev
protons in the center of mass of two
nucleons

which later desintegrates into a nucleon and a K meson. It is probable that the
production of stars containing hyperfragments is accompanied by a complete
absorption of cascade particles since the number of fast particles is here half of
what is found in ordinary stars, and the nucleus acquires a considerable amount of
energy. There are 2 figures.

SUBMITTED: July 28, 1962

Card 2/2

L 15685-65   EWT(m)   ASD-3/DIAAP   S/ 0120/64/000/005/0065/0070
ACCESSION NR: AP4047460

AUTHOR: Lepekhin, F. G.   B

TITLE: Particle discrimination by ionization parameters of their tracks
measured in nuclear photoemulsions

SOURCE: Pribory* i tekhnika eksperimenta, no. 5, 1964, 65-70

TOPIC TAGS: particle discrimination, particle track, nuclear emulsion

ABSTRACT: The discrimination of particles by their tracks in photoemulsions is
treated as a particular case of isolating information in a generalized communica-
tion system. The particle with its charge, mass, and velocity is regarded as a
source of primary info; the developer, as a transmitter; the observer's eye, or
indicator, as a receiver. The communication system is regarded as an FM
pulsed system, in which the number of pulses per unit track is the signal
frequency; the frequency variation reveals changes in ionization along the track.

Card 1/2

L 15685-65
ACCESSION NR: AP4047460

To illustrate the method, a single-charge-particle velocity is evaluated on the basis of the density of clots measured from their tracks on the emulsion. The problem of restoration of the transmitted-function form on the basis of the received-signal form is solved by Kolmogorov's minimum-quadratic theory of smoothing and prediction. An auxiliary formula suggested by the author is justified by examples of two emulsions having different characteristics; the formula permits evaluating, without preliminary calibration, relative specific energy loss on the basis of the clot density in a broad range of ionization. Orig. art. has: 3 figures, 8 formulas, and 1 table.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN SSSR (Physico-Technical Institute, AN SSSR)

SUBMITTED: 25May63   ENCL: 00

SUB CODE: NP   NO REF SOV: 005   OTHER: 004

Card 2/2

LEPEKHIN, F.G.; MAKAROV, M.M.; TKACH, L.N.

Applicability of the evaporation theory in describing the
emission of multiply charged particles from heavy nuclei.
IAd. fiz. 1 no.6:987-993 Je '65.   (MIRA 18:6)

1. Fiziko-tekhnicheskiy institut imeni Ioffe AN SSSR.

L 2736-66   EWT(m)/T/EWA(m)-2
ACCESSION NR: AP5024336

AUTHOR: Assovskaya, A. S.; Lepekhin, F. G.

TITLE: Interaction between nuclei and π⁻ mesons with a momentum of 7.2 Gev/c

SOURCE: Yadernaya fizika, v. 2, no. 2, 1965, 248-249

TOPIC TAGS: pi meson, nuclear emulsion, strong nuclear interaction, particle cross section

ABSTRACT: The authors studied interactions between π⁻ mesons with a momentum of 7.2 Gev/c and the nuclei in a photographic emulsion when two relativistic particles are emitted which can be identified from geometric conditions for any number of slower particles. The experimental equipment is described. The OIYaI synchrophasotron was used as the radiation source. Nearly all events showed a large number of tracks from slower particles and could be described as interactions between the π-mesons and heavy nuclei in the emulsion. The particles were identified by measuring plural Coulomb scattering and relative ionization. There were 56 interactions between π-mesons and nuclei accompanied by emission of two relativistic particles accessible to identification. The results are tabulated. In this case of π-nuclear interactions charged K-mesons make up approximately 40% of the spallations. The cross sec-

Card 1/2

L 2736-56
ACCESSION NR: AP5024336

tions were evaluated for production of K^+ mesons with momenta from 200 to 1200 Mev/o
at points with two relativistic tracks. This cross section was found to be 9.9 ±
4.7 millibarns. "The authors are grateful to L. V. Morozova, N. Turukhano, M. I.
Trukhin, workers at the Radium Institute, I. F. Makarova, I. P. Przhesmitskaya, for
participation in studying the emulsion chamber, and to N. N. Knyazeva, L. N. Tkach
and M. G. Shchegel'skaya for help with the measurements and calculations." Orig.
art. has: 2 tables.

ASSOCIATION: Fizikotekhnicheskiy institut im. A. F. Ioffe Akademii nauk SSSR
(Physicotechnical Institute, Academy of Sciences, SSSR)

SUBMITTED: 26Mar65

NO REF SOV: 005

ENCL: 00

OTHER: 002

SUB CODE: NP

Card 2/2

L 35861-66   ENT(1)/ENT(m)/T   IJP(c)   WW
ACC NR: AP6021995

AUTHOR: Lepekhin, F. G.; Ovchinnikov, B. M.

SOURCE CODE: UR/0120/66/000/003/0041/0044

ORG: Physico-Technical Institute, AN SSSR, Leningrad (Fiziko-tekhnicheskiy institut AN SSSR)

TITLE: Spark chamber with acoustic spark location

SOURCE: Pribory i tekhnika eksperimenta, no. 3, 1966, 41-44

TOPIC TAGS: spark chamber, particle counting

ABSTRACT: A new spark chamber in which spark coordinates are automatically determined by an acoustic-location method is described. A special electrostatic microphone after M. Wright et al. (IRE Internat. Convention Rec., 1962, v. 10, no. 6, 95) was constructed. An Al-sprayed dacron $8-\mu$ thick 4×30-mm film was used in the microphone; capacitance, 150 pf; maximum frequency, 1 Mc; the input characteristic is linear within a 1:10 signal range. A 5-gap 200×40-mm electrode chamber had a microphone at each spark gap. The chamber was controlled by two scintillation counters. A transistorized nonoverloading amplifier (principal circuits shown) was used in conjunction with the chamber. The best resolution of the microphone-amplifier system was 4 mm. These chambers can be used for recording several simultaneous events. A special circuit was developed for suppressing noise whose height is 1/10 of that of the signal and which persists for 50 μsec after the signal. Orig. art. has: 6 figures.

SUB CODE: 18 / SUBM DATE: 29Apr65 / ORIG REF: 001 / OTH REF: 007 / ATD PRESS: 5037

Card 1/1   [03]

UDC: 539.1.073.2

L 45997-66   EWP(m)/EWT(1)   WW
ACC NR: AP6030127

SOURCE CODE: UR/0120/66/000/004/0047/0050

AUTHOR: Lepekhin, F. G.; Ovchinnikov, B. M.

ORG: Physico-Technical Institute AN SSSR, Leningrad (Fiziko-tekhnicheskiy institut AN SSSR)

TITLE: Spark chamber with automatic measurement of spark coordinates

20
B

SOURCE: Pribory i tekhnika eksperimenta, no. 4, 1966, 47-50

TOPIC TAGS: spark chamber, time interval analyzer

ABSTRACT: An electronic analyzer is described which is intended for measuring and recording time intervals associated with propagation of shock waves from sparks to microphones in a filmless spark chamber. The interval storage unit has a capacity of 20 12-digit numbers and is designed with tunnel diodes. By filling the chamber with argon mixed with alcohol vapor, at 1.2 atm, a microphone signal as high as 0.3 v was obtained. The chamber was calibrated by 5 point-type spark dischargers. The adopted method of measurement permits eliminating the near-spark region of the shock-wave propagation (Informal Meeting on Filmless Spark Chamber Techniques and Associated Computer USE, CERN, Geneva, March 3-6, 1964). The time intervals are measurable with an error of 0.5 sec. The mean square error of determining one spark coordinate is 0.28 mm. "In conclusion, the authors wish to thank M. N. Ivanov for his help in the work and valuable advice and also E. A. Mul'dt for his participation in aligning the analyzer." Orig. art. has: 6 figures.

SUB CODE: 07 SUBM DATE: 05Aug65/ ORIG REF: 002/ OTH REF: 001/ ATD PRESS: 5087   [03]
Card 1 pb 07

UDC: 539.1.073:621.3.087.4

ARBEN'YEV, A.S., inzh.; KOZLOV, A.D., inzh.; LEPEKHIN, I.P., inzh.; SUDAKOV, V.F., inzh.

Winter concreting of foundations with electric curing of the concrete mix. Prom. stroi. 42 no.9:41-42 S '64.   (MIRA 17:10)

Dissertation: "Steel Structures of the Cantilever Type."

Central Sci R's Inst of Industrial Constructions -
"TsNIIPS."

SO Vecheryaya Moskva
Sum 71

ALEKSANDROV, P.V.; LEPEKHIN, N.M.

     Perforating thoracoabdominal gunshot wound. Khirurgiia, Moskva 34
     no.11:133 N '58.   (MIRA 12:1)
         (GUNSHOT WOUNDS)

LEBED', Lev Davidovich; KASTRONOVA, Yevgeniya Konstantinovna;
    LEPEKHIN, Potr Vasil'yevich; KUKLIN, P.V., red.

    [Down-type goats of the Don Valley] Pridonskie pukhovye
    kozy. Volgograd, Volgogradskoe knizhnoe izd-vo, 1962.
    89 p.   (MIRA 18:3)

L 14150-66   EWT(m)
ACC NR: AP6001319   SOURCE CODE: UR/0248/65/000/009/0055/0058

AUTHOR: Grinev, A. N.; Il'yuchenok, T. Yu.; Lepekhin, V. P.; Shadurskiy, K. S.

ORG: Institute of Medical Radiology, AMN SSSR, Obninsk (Institut meditsinskoy
radiologii AMN SSSR)

TITLE: Loss of hypotensive activity by 5-hydroxyindole derivatives in irradiated
animals

SOURCE: AMN SSSR. Vestnik, no. 9, 1965, 55-58

TOPIC TAGS: serotonin, radiation drug, radioprotective agent

ABSTRACT: A hypotension lasting from 32 to 77 days following administration of
eighteen indole derivatives was established in rats of the August strain. Prelimi-
nary exposure of the animals to 300 or 600 rads of external radiation altered the
hypotensive effect of the drugs considerably. A 300 rad dose increased the latent
period, i. e., the time that hypotension set in, and shortened the duration of the
effect of compound ORF-50. The hypotensive effect was induced after a 600 rad dose,
and the blood pressure remained steady and within normal limits. The blood pres-

UDC: 615.7-092.259 : 617-001.28

Card 1/2

L 14150-66
ACC NR: AP6001319

sure of irradiated rats not previously treated with one of the protective agents
tended to drop. The author conjectures that irradiation disrupts the mechanisms by
which the 5-hydroxyindole derivatives participate in the hypotensive effect. Orig.
art. has: 2 figures, 1 table.

SUB CODE: 06/   SUBM DATE: 05Jun65/   ORIG REF: 005/   OTH REF: 000

Card 2/2

LEPEKHINA, A.A.

Introduction of tree species in the lowlands of Daghestan.
Bot. zhur. 46 no.11:1686-1699 N '61.   (MIRA 15:2)

1. Dagestanskiy gosudarstvennyy pedagogicheskiy institut,
Makhachkala.
                        (Daghestan—Trees)

LEPEKHINA, A.A.

Introduction of trees and shrubs in the Daghestan A.S.S.R. Biul
Glav.bot.sada   no.44:3-11. '61.   (MIRA 15:2)

1. Dagostanskiy gosudarstvennyy universitet imeni Lenina.
      (Daghestan--Woody plants)

_____, A. A.

[illegible]

"The Effect of [illegible] strength [illegible]." [illegible]
Institute A. A. [illegible]. Dissertation
for the Degree of Candidate in Biological [illegible])

[illegible]: Biokhimiya Letersia' No. 2, [illegible]

LEPFKHINA, L.P., Cand biol Sci -, (diss) "Methods
of compensating for functional disorders of the lower
extremities in patients with after-effects of poliomyelitis."
Mos, 1958, 16 pp (First Mos Order of Lenin Med Inst im
I.M. Sechenov) 200 copies (KL, 29-58, 130)

- 33 -

VIL'CHUR, O.M., prof.; IEFIMOV, V.V., prof.; LEPERHINA, L.P., kand.med.
nauk; SOBOLEVA, M.S.

Clinical and electrophysiological paralells in patients with so-
called mild closed cerebrocranial injures (concussion of the
brain). Khirurgiia 36 no.11:96-102 N '60.   (MIRA 13:12)

1. Iz TSentral'nogo instituta travmatologii i ortopedii (dir. -
deystvitel'nyy chlen AMN SSSR prof. N.N. Priorov) Ministerstva
zdravookhraneniya SSSR.
        (BRAIN--CONCUSSION)   (ELECTROENCEPHALOGRAPHY)

VLADIMIRTSEV, I.N.; KIRILLOV, I.A.; LEPEKHINA, M.Ye.,; FILATOVA, I.T.,
     red.; GOLICHENKOVA, A.A., tekhn. red.

[Trade union of agricultural workers; concise historical study]
Profsoiuz rabochikh sel'skogo khoziaistva; kratkii istoricheskii
ocherk. Moskva, Izd-vo VTsSPS Profizdat, 1961. 245 p.
                                  (MIRA 15:3)
    (Trade unions)   (Agricultural workers)

LEPEKHINA, V.G.; PETROSYAN, N.P.; RADCHENKO, G.P.

Most important Devonian plants in the Altai-Sayan Mountain
region. Trudy VSEGEI 70:61-189 '62.   (MIRA 15:11)
                      (Altai Mountains--Paleobotany)
                      (Sayan Mountains--Paleobotany)

LEPEKHINA, V.G.

New finds of the woods of Upper Paleozoic Cordaites in Kazakhstan.
Paleont. zhur. no.4:103-109 '63.   (MIRA 17:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskiy institut.

ACCESSION NR: AP4033128   S/0120/64/000/002/0121/0125

AUTHOR: Averina, A. P.; Levina, G. N.; Lepekhina, V. T.; Rafal'son, A. E.

TITLE: Omegatron mass spectrometer for analyzing residual gas in high-vacuum systems

SOURCE: Pribory* i tekhnika eksperimenta, no. 2, 1964, 121-125

TOPIC TAGS: spectrometer, mass spectrometer, residual gas, high vacuum technique, high vacuum electronic device

ABSTRACT: The development of a new MKh 4301 omegatron mass spectrometer is reported which consists of the following parts: (1) an analyzer; (2) a measuring unit that includes an h-f oscillator, a cathode-ray-tube recording unit, sweep amplifiers, an ion-current amplifier, and a power-supply unit; (3) an electrometric stage of the ion amplifier; (4) a permanent magnet; (5) a permanent-magnet adjuster; and (6) a chassis with a lifting mechanism. The

Card 1/2

ACCESSION NR: AP4033128

spectrometer has the following characteristics: measurement range, 2-150 atomic mass units (amu); sensitivity, 10 per torr; resolution, 25 per mass 25; pressure range, $10^{-5} - 10^{-10}$ torr; relative error in partial-pressure measurement, $\pm 10\%$; magnetic field strength, 3,300 oerst; duration of recording, 2, 5, and 10 sec for oscillographic screen, or 3 and 30 min for EPP-09 electronpotentiometer tape; frequency bands of the oscillator, 30-480 kc for manual sweep, or 30-2,800 kc for automatic sweep. Other details given. Orig. art. has: 5 figures and 3 formulas.

ASSOCIATION: SKB Analiticheskogo priborostroyeniya AN SSSR (Special Design Office for Analytical Instruments, AN SSSR)

SUBMITTED: 06May63   DATE ACQ: 11May64   ENCL: 00

SUB CODE: PH, GE   NO REF SOV: 001   OTHER: 004

Card 2/2

KUDRYAVTSEV, G.N.; LEVINA, G.N.; LEPEKHINA, V.T.; MARTYNKEVICH,
    G.M.; OZEROV, L.N.; RAFAL'SON, A.E.

Some characteristics and possibilities of a miniature transit-time
mass spectrometer. Trudy TSAO no.61:93-99 '65.   (MIRA 18:7)

L 7993-66

ACC NR: AP5026564   SOURCE CODE: UR/0286/65/000/019/0127/0127

AUTHORS: Lebedev, O. Ye.; Levina, G. N.; Lepekhina, V. T.; Libman, M. L.;
Martynkevich, G. M.; Ozerov, L. N.

ORG: none

TITLE: Arrangement for protecting and uncovering evacuated gauge of a device.
Class 62, No. 175398 /announced by Special Construction Bureau of the Analytic
Instrument Construction, AN SSSR (Spetsialnoye konstruktorskoye byuro
analiticheskogo priborostroyeniya AN SSSR)_/

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 19, 1965, 127

TOPIC TAGS: vacuum, vacuum measurement, vacuum seal

ABSTRACT: This Author Certificate introduces an arrangement for protecting and
uncovering an evacuated gauge of a device while introducing the gauge into the in-
vestigated medium (see Fig. 1). The arrangement contains a sealed hood connected to
the nipple of the device and a mechanism for destroying this hood. To make sure that
the investigated medium enters the gauge and to protect the gauge from damage while
it is being uncovered, the hood is made up of two metallic parts fixed to one
another and to the nipple with airtight glass seams. The parts of the hood are also
provided with earlike holders which are connected to the hood-destroying mechanism.
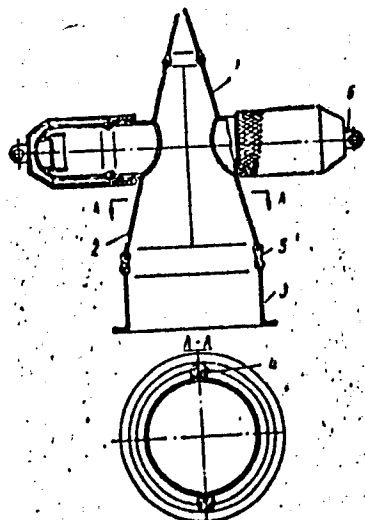
Card 1/2   UDC: 629.19:621.3.083.8:543.27

L 7993-66

ACC NR: AP5026564

Fig. 1. 1 and 2- hood; 3- nipple of the device; 4 and 5- glass seams; 6- ears

Orig. art. has: 1 figure.

SUB CODE: IE/ SUBM DATE: 12oct64
    nw

Card 2/2

L 21738-65   EWT(m)/EWP(t)/EWP(b)   IJP(c)   JD

ACCESSION NR: AP4021565   S/0136/64/000/003/0090/0091

AUTHOR: Brinza, V. N.; Lepekin, V. S.

TITLE: Repeated heatings of the titanium-clad steel   B
27

SOURCE: Tsvetnyye metally, no. 3, 1964, 90-91

TOPIC TAGS: titanium clad steel, cladding steel transition zone, transition zone
property, transition zone structure, clad steel annealing, diffusion zone

ABSTRACT: The effect of repeated heating at 400-1000C on the microhardness and
the structure of the transition zone between titanium cladding and low carbon
steel was investigated to determine the optimum annealing temperature for the
titanium clad steel. The heating was done in a vacuum of 10 mm Hg at a rate of
200C/hr. Annealing at 1000C changes the structure significantly - the diffusion
zone consists of sharply differing phases, its plasticity is reduced sharply due
to the formation of intermetallic compounds, the eutectic that is formed is brittle
and porous, and the microhardness of titanium, especially at the diffusion zone,
is sharply increased (Fig. 1). Annealing at 900C for 1 hr also impaired proper-
ties; repeated annealing at 750C (four 2 hr cycles) resulted in increased width

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L 21738-65
ACCESSION NR: AP4021565

and microhardness of the transition zone due to the formation of intermetallic
compounds. Only annealing at 450-500C has no detrimental effects; on the contrary
it lowers microhardness and improves physical properties in the transition zone;
treatment at 400C results in a slight decrease, only 3-5%, in the original strength
of the bond between cladding and steel (Fig. 2). Orig. art. has: 3 figures and 1
table.

ASSOCIATION: none

SUBMITTED: 00   ENCL: 02   SUB CODE: MM

NO REF SOV: 006   OTHER: 008

Card 2/4

(N) L 11626-66   EWT(m)/EWA(d)/EWP(t)/EWP(z)/EWP(b)   IJP(c)   JD/WB

ACC NR: AP6001106

SOURCE CODE: UR/0136/65/000/012/0077/0079

AUTHOR: Brinza, V. N.; Lepekin, V. S.

ORG: none

TITLE: Protection of titanium alloys from oxidation

SOURCE: Tsvetnyye metally, no. 12, 1965, 77-79

TOPIC TAGS: coating, protective coating, titanium alloy, alloy coating, titanium alloy coating, titanium alloy oxidation, oxide inhibition

ABSTRACT: A coating for protecting titanium alloys from oxidation during heating for pressure working has been investigated. The coating, consisting of 31—35% talc, 16—18% rutile, 8—10% borax, 12—14% Na_2CO_3, 0.3% K_2CO_3, and 17% coolin mixed with water, was applied by dipping. Coated specimens of BT11, BT14, and OT4 titanium alloys were heated in air for 3 hr at 900—1200C or in a flow of O_2, N_2, and CO_2. The weight loss of coated BT11, BT14, and OT4 specimens heated in air was 0.006, 0.8, and 0.4%, respectively, compared to 5—9% for uncoated specimens. The surface hardness of coated specimens increased by 15—20%, and that of uncoated specimens by 45—50%. The weight loss of uncoated specimens heated in a gas flow was about 10%, and that of coated specimens was 0.01—0.1%. The investigation showed that the properties of uncoated alloy heated in a vacuum furnace or coated alloy heated in an ordinary industrial furnace do not differ greatly. Orig. art. has: 1 figure. [WW]

Card 1/2

UDC: 669.295:66.042.56

L 11626-66

ACC NR: AP6001106

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 002/ OTH REF: 001/ ATD PRESS: 4177

Card 2/2

Leporidin L, F

t

The relation between the speed of sound and the physico-chemical characteristics of fluids. V. E. Aladev and L. F. Leporidin (Moscow Regional Pedagog. Inst.). *Zhur. Fiz. Khim.* 27, 121–8(1953).—A theoretical discussion is given of the speed of sound in liquids from the standpoint of the laws of corresponding states and the mol.-kinetic theory of liquids. It is shown that the molar velocity of sound is proportional to the parachor. This method leads to generalized expressions from which the relative heat capacities of the liquid can be calcd.
J. Rovtar Leach

LEFENDIN, L. F.

"Velocity of Sound in Gases and Fluctuations in Density and Ener.y", a report
presented at a conference of professors and teachers of the institutes of the
Ministry of Education RSFSR and published in the "Application of Ultrasonics to
the Investigation of Substances," Moscow, 1955.

LEPENDIN L. F.

Sound velocity and heat capacity C_v at the critical point.
L. F. Lependin. *Uchen. Zapiski Moskov. Oblast. Pedagog. Inst.*, **33**, 211–18 (1955); *Referat. Zhur., Khim.* 1956, Abstr. No. 12318.—Exptl. acoustic data indicate that at the crit. point, at const. vol., heat capacities have finel values. Hence $C_p/C_v \to \infty$, since $C_p \to \infty$. A method is proposed for calcn. of C_{v} by using common correlations of thermodynamic deriv. The following values were calcd. for acoustic resistances (sound rigidity) and C_{v} in joules/g. degree: MeOAc 50 × 10^4, 3.03; EtOAc 22 × 10^4, 2.92; PrOAc 17 × 10^4, 4.35; benzene 41 × 10^4, 1.45; heptane 26 × 10^4, 1.35; EtOH 4.7 × 10^4, 2.87. Sound rigidity was calcd. by using the method of straight-line diam.
I. Minkewitz.

LEPENDIN, L. F.

"Application of Ultrasound for Improving the Quality of the Seam in Electric
Slg Welding."

report presented at the 6th Sci. Conference on the Application of Ultrasound
in the investigation of Matter, 3-7 Feb 1958, organized by Min. Education
RSFSR and Moscow Oblast Pedagogic Inst. im N. K. Krupskaya.

I 2300   ߮ 1137,2607

25255
S/194/61/000/001/022/038
D216/D304

AUTHOR: Lependin, L.F.

TITLE: The possibility of applying ultrasonics to obtain a
               better structure of the seam in electrical seam
               welding

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika,
               no. 1, 1961, 15, abstract 1 E134 (V Sb. Primeneniye
               ul'traakust. k issled. veshchestva, no. 10, M.,
               1960, 139-145)

TEXT: The influence of ultrasonics and acoustical vibrations on
the seam structure in the process of electric seam welding has been
studied. An improvement in the seam structure has been found under
the influence of 280 c/s vibrations at an intensity of 0 001 J/cm^2.
Experiments with exposed congealing hyposulphite have shown that at
an intensity of 0.5 J/cm^2 the speed of crystallization is increased
and the dimensions of the grain are decreased. The ultrasonic oscil-

Card 1/2

The possibility of applying...

S/194/61/000/001/022/038
D216/D304

lations in the region of the seam were obtained from a magnetostric-
tive vibrator (frequency 40 Kc/s); the calculated field intensity
at the seam was ~ 2.2 W/cm^2. The description of the hydrodynamical
radiator used is given.   7 references.

Card 2/2

SVINORUK, V.I.; LEPENDIN, L.F.

        Measurement of temperature at a point of the surface of
        an electric conductor. Zav.lab. 26 no.6:736-738 '60.
                                 (MIRA 13:7)

            (Thermocouples)

LEPENDIN, L. F.

PHASE I BOOK EXPLOITATION   SOV/5644

Vserossiyskaya konferentsiya professorov i prepodavateley pedagogicheskikh
institutov

Primeneniye ul' traakustiki k issledovaniyu veshchestva. vyp. 10. (Utilization
of Ultrasonics for the Investigation of Materials. no. 10) Moscow, Izd-vo
MOPI, 1960. 321 p. 1000 copies printed.

Eds.: V. F. Nozdrev, Professor, and B. B. Kudryavtsev, Professor.

PURPOSE: This book is intended for physicists and engineers interested in
ultrasonic engineering.

COVERAGE: The collection of articles reviews present-day research in the
application of ultrasound in medicine, chemistry, physics, metallurgy, ce-
ramics, petroleum and mining engineering, defectoscopy, and other fields.
No personalities are mentioned. References accompany individual articles.

Card 1/10

Utilization of Ultrasonics (Cont.)   SOV/5644

Card 5/10

24 170

S/263/62/000/014/005/006
I007/I207

AUTHOR: Lependin, L. F., Rudenko, Yu. S. and Ruchko, R. I.

TITLE: Calorimetric method of measuring ultrasonic intensity

PERIODICAL: Referativnyy zhurnal, otdel'nyy vypusk. 32. Izmeritel'naya tekhnika, no. 14, 1962, 24, abstract 32.14.152. (In Collection Prom. primeneniye ul'trazvuka. Kuybishevsk. aviats. in-t. Kuybyshev, 1961, 72-74)

TEXT: A method used at the Taganrogskiy radiotekhnicheskoiy institut (Taganrog Electronics Institute) for calorimetric determination of the average intensity of an ultrasonic field is described. The method, combined with measurements of voltage and intensity of electric current applied to the radiator, permits the determination of the electroacoustic efficiency and of the power factor ($\cos \varphi$) of the radiator. There are 2 figures.

[Abstracter's note: Complete translation.]

Card 1/1

35826
S/137/62/000/004/159/201
A060/A101

/2300

AUTHORS: Lependin, L. F., Rudenko, Yu. S., Ruchko, R. I.

TITLE: Effect of ultrasonics upon the seam structure of penetrating electric slag welding

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 4, 1962, 8, abstract 4E35
             (V sb. "Primeneniye ul'traakust. k issled. veshchestva", no. 12,
             Moscow, 1960, 75 - 76)

TEXT: The effect of ultrasonic radiation upon the seam structure in the
course of electric slag welding was investigated. The welding was carried out of
a large number of experimental seams with various variants of introducing the
ultrasonic vibration into the vat. Metallographic analysis has discovered a
notable difference in the structure of irradiated and nonirradiated specimens of
the seam. The microstructure of the seam crystallized in an ultrasonic field is
more homogeneous. The dimensions of the grains of a seam on the boundary of the
built-up and the base metal are smaller by a factor of 1.2, and by a factor of
1.9 in the center, than those in specimens welded according to the same welding

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schedule but without ultrasonic action. A different etchability is uncovered in seams crystallized under ordinary conditions and in an ultrasonic field, which is the result of the purification of the built-up metal from slag impurities. See also RZhMet, 1961, 1E34.

V. Tarisova

[Abstracter's note: Complete translation]

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40335

S/194/62/000/006/123/232
D256/D308

AUTHORS: Lependin, L.F., Rudenko, Yu.S., and Ruchko, R.I.

TITLE: Effect of ultrasound on crystallization of polycry-
          stals"

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, -
          no. 6, 1962, abstract 6-5-40 y (V sb. Primeneniye
          ul'traakust. k issled. veshchestva, no. 12, M., 1960,
          77-80)

TEXT: The process of crystallization of hyposulphite was investi-
gated at 80 kc/s and approx. 3 W/cm^2 energy flux. The crystalliza-
tion of the hyposulphite was observed in test-tubes placed in a
water bath. Without the ultrasound the crystallization started
from the bottom of the tube and to some extent from the central
region of the melt. Photographs were taken showing a coarse grained
structure with a large number of blisters. Using the ultrasonic
treatment the crystallization starts at the top of the tube and
spreads downwards producing a uniform mass free of blisters. It is
shown that the change of the crystalline structure results in chan-

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ged mechanical properties of hyposulphite, the strength and the mo-
dulus of elasticity being increased. Crystallization of zinc from
a melt was investigated using a magnetostrictive radiator with
concentrator at 30 kc/s and 5 to 6 W/cm^2 energy flux. A fine grain
structure with crystals having equal axes, an increased strength
limit and reduced modulus of elasticity was obtained. 4 figures.
[Abstracter's note: Complete translation.]

Card 2/2

S/194/62/000/005/086/157
D222/D309

AUTHORS: Lependin, L.F., Rudenko, Yu.S., and Ruchko, R.I.

TITLE: Some experiments on the kinetics of crystallization from solutions in an ultrasound field

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 5, 1962, abstract 5-5-41 l(V sb. Prom. primeneniye ul'trazvuka, Kuybyshevsk. aviats. in-t. Kuybyshev. 1961, 220 - 228)

TEXT: The influence of low and high intensity ultrasound on the kinetics of crystallization and on the physical properties of zinc and hyposulphite were investigated, which, since they are transparent, have a macrocrystalline structure when crystallized under normal conditions, and a low crystallization temperature. Sound radiation was obtained from a magnetostrictive vibrator at a frequency of 30 kc/s and intensity up to 5 - 6 W/cm^2 in the melted metal. In the intense ultrasound field a marked change in the structure of the ingot was observed towards fine-grain structure; the crystallization process changed from frontal to volume; the average density of
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Some experiments on the kinetics of ...

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the ingot remained unchanged. Tensile testing of zinc specimens has shown that in the ultrasound field the proportionality limit is raised, the tensile strength increased, while the modulus of elasticity is reduced. The hyposulphite specimens solidified under the influence of ultrasound showed an increased tensile strength. The irradiated specimens broke down under pressure at 80 - 90 kg/cm^2, while the non-irradiated ones at 25 - 30 kg/cm^2. The Young's modulus of the irradiated specimens was 6 - 8 kg/cm^2, that of the non-irradiated ones 3 kg/cm^2. Experiments on the action of low-intensity ultrasound (0.03 W/cm2) were carried out with hyposulphite specimens. It was observed that under the influence of ultrasonic field, the axis of the crystals is directed along the direction of propagation of the ultrasound; new centers of crystallization arise. The crystal growth takes place through the attachment of complete crystals, which increases the speed of crystallization. The crystals growth in an ultrasound field are more homogeneous and contain less impurities. 8 figures. 3 references. [Abstractor's note: Complete translation].

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LEPENDIN, L.F.; RUDENKO, Yu.S.

Growth of crystals from hyposulfite melts in an ultrasonic field.
Prim. ul'traakust. k issl. veshch. no.14:241-245 '61. (MIRA 14:12)
        (Dithionite crystals--Growth) (Ultrasonic waves)

LEPEKHIN, L., podpolkovnik

     Artillery firing exercises on the terrain. Voen. vest. 42
no.10:78-79 0 '62.
         (Artillery—Problems, exercises, etc.)   (MIRA 15:10)

L 16724-66   EWT(m)   DIAAP

ACC NR: AP6008460   SOURCE CODE: UR/0089/65/019/005/0459/0460

AUTHOR: Grishanin, Ye. I.; Kukavadze, G. M.; Lependin, V. I.; Mamelova, L. Ya.; Morozov, I. G.; Orlov, V. V.; Pilipets, D. T.

ORG: none

TITLE: Measurement of the absorption cross section of sup 156 Gd

SOURCE: Atomnaya energiya, v. 19, no. 5, 1965, 459-460

TOPIC TAGS: gadolinium, neutron cross section, thermal neutron, neutron irradiation, mass spectrometer, neutron spectrum, nuclear reactor, neutron

ABSTRACT: Samples of gadolinium oxide were irradiated in a reactor with thermal neutrons to various integral fluxes. The thermal-neutron absorption cross section of ^{156}Gd was determined from the values of the ^{156}Gd and ^{157}Gd concentrations in the irradiated samples, measured on a mass spectrometer, and the value of the ^{157}Gd absorption cross section, obtained by averaging the cross section from resonance parameters over the neutron spectrum of the reactor. The cross section for 0.025-ev neutrons was found to be 13 ± 3 barns. /NA/

SUB CODE: 18, 20 / SUBM DATE: 02Apr65 / OTH REF: 003

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IOFFMAN, Yu.G.; LEBEDINA, G.I.

Magnetochemical study of some alkyl derivatives of silicon.
Zhur. strikt. khim. 5 no.4:632-634 Ag '64.   (MIRA 18:3)

1. Institut neftekhimicheskogo sinteza imeni Topchieva AN SSSR.

L0913
S/204/62/002/001/006/007
I032/I232

/ /S7C

AUTHORS: Lependina, O. L., Polak, L. S.

TITLE: The effect of the structure of hydrocarbons on radical formation during low temperature
             γ-radiolysis in the solid phase

PERIODICAL: Neftekhimiya, v. 2, no. 1, 1962, 68-70

TEXT: This is an experimental study of the relative probabilities of the rupture of different C-H
bonds during radiolysis of hydrocarbons at low temperature. Different isomers of dodecane were irradiated
with γ-rays from a Co⁶⁰ source at −196°C and the EPR spectra of the products of radiolysis were taken at
at the same temperature. It is inferred from comparison of the EPR spectra that if a ternary carbon atom is
present in the molecule the radical formation takes place preferentially through rupture of the C-H bond
at the ternary C-atom, while the position of this C-atom in the molecule and the character of branching are
of no significance. There is one figure.

ASSOCIATION: Institut neftekhimicheskogo sinteza AN SSSR (Institute of Petrochemical Synthesis,
             AS USSR)

SUBMITTED: January 9, 1962

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